upper chamber and a lower chamber, means providing communication between the bottom of said upper chamber and the top of said lower chamber, an inlet tube extending from said lower chamber exteriorly of said bottle, and an outlet tube extending from said upper chamber exteriorly of said bottle.

8. Sample collection apparatus comprising a circular table having a plurality of slots constructed and arranged to receive and support a plurality of collection bottles each of which has an inlet opening; a single fluid discharge tube positioned above said table; means for alternately rotating and raising and lowering said table to seal the output end of said discharge tube successively to the inlet opening of each of said collection bottles to collect the components passing out of said discharge tube at time spaced intervals in separate collection bottles; and pressure exit means for relieving pressure within each of said bottles when fluid components flow thereinto from the discharge tube sealed thereto.

9. Sample collection apparatus comprising in combination: a main frame; a table drive shaft; means for rotatably supporting said drive shaft from said frame, said shaft being slidable vertically of said frame; drive motor means for rotating said shaft; a circular table horizontally supported on said drive shaft, said table having a plurality of radial slots spaced about the periphery thereof and extending inwardly from the periphery a substantially equal length to a circle concentric with said drive shaft, each of said slots constructed and arranged to support a collection bottle on the table; a fluid discharge tube fixedly supported on said main frame above the circle around said table; and means for stopping rotation of said drive shaft and for moving said table vertically of said frame for successively sealably inserting the end of said discharge tube into a collection bottle supportable from said table.

10. The apparatus of claim 9 including a tubular needle insert provided on the output end of said discharge tube for piercing a cover cap on the top of the collection bottles, said needle insert provided with a V-shaped groove on the tip thereof to prevent pressure surges when said needle insert pierces said sealing caps.

11. The apparatus of claim 9 including positioning roller means located to engage a pair of said radial table slots when said table is moved vertically upwardly precisely to locate said discharge tube over the inlet tube of one of said collection bottles.

12. The apparatus according to claim 9 including a plurality of collection bottles each of which comprises an upper chamber; a lower chamber; means providing communication between the bottom of said upper chamber and the top of said lower chamber; an inlet tube providing communication between said lower chamber and the exterior of said bottle; and an outlet tube providing communication between the top of said upper chamber and the exterior of said bottle.

13. The apparatus of claim 9 wherein said moving and rotation stopping means including a lever arm rotatably supported on said frame, said lever arm provided with a roller portion engaging the periphery of said table and partially rollable into said slots in said table, means responsive to the position of said lever arm for stopping rotation of said drive shaft when the roller portion of said lever arm rolls into the initial portion of one of said slots and means responsive to the position of said lever arm for moving said table vertically of said frame when the roller portion of said lever arm is in the initial portion of one of said slots.

14. Apparatus according to claim 13 including clip means constructed and arranged for insertion into certain of said slots for preventing the roller portion of said lever arm from entering the initial portion of said certain slots.

15. Apparatus according to claim 13 including clip means constructed and arranged for insertion into one of said slots and projecting partially beyond the periphery of said table to cause said lever arm to roll radially outwardly of the periphery of said table and means responsive to the position of the lever arm to initiate other apparatus for a repeat cycle of the sample collection apparatus when the lever arm rolls radially outwardly from the table periphery.

16. Sample collection apparatus comprising in combination: a main frame; a table drive shaft; means for rotatably supporting said drive shaft from said frame, said shaft being slidable vertically of said frame; drive motor means for rotating said shaft; a circular table horizontally supported on said drive shaft, said table having a plurality of radial slots spaced about the periphery thereof and extending inwardly from the periphery a substantially equal length to a circle concentric with said drive shaft; a plurality of collection bottles, each of said bottles positioned in one of said table slots at the circle on the table and having an upper chamber and a lower chamber, means providing communication between the bottom of said upper chamber and the top of said lower chamber, an inlet tube extending from said lower chamber exteriorly of said bottle, an outlet tube extending from said upper chamber exteriorly of said bottle, a cover cup covering the outer end of said inlet tube, and a vent cap covering the outer end of said outlet tube and having a pressure exit opening therein; a fluid discharge tube fixedly supported on said main frame above the circle on said table on which said collection bottles are located; a tubular needle insert provided at the end of said discharge tube for piercing said bottle cover caps, said needle insert provided with a V-shaped groove on the tip thereof; a lever arm rotatably supported about a vertical axis on said frame, said lever arm provided with a roller portion engaging the periphery of said table and rollable into an initial portion of said slots in said table to bear against the vent cap of a bottle positioned therein to open the pressure exit opening of the bottle; means responsive to the position of said lever arm for stopping rotation of said drive shaft when the roller portion of said lever arm rolls into said slots; means responsive to the position of said lever arm for moving said table vertically of said frame when the roller portion of said lever arm is in the initial portion of one of said slots; by-pass clip means constructed and arranged for insertion into certain of said slots for preventing the roller portion of said lever arm from entering the initial portion of said certain slots; return clip means constructed and arranged for insertion into one of said slots and projecting partially beyond the periphery of said table to cause said lever arm to roll radially outwardly of said table and means responsive to the position of said lever arm to initiate other apparatus for a repeat cycle of the collection apparatus when the lever arm rolls radially outwardly from the table periphery; and positioning roller means located to engage a pair of said radial table slots when said table is moved vertically upwardly precisely to locate said discharge tube over the inlet tube of one of said collection bottles.

17. A sample collection bottle comprising in combination: an upper chamber; a lower chamber; means providing communication between the bottom of said upper chamber and the top of said lower chamber; an upwardly projecting inlet tube providing communication between said lower chamber and the exterior of said bottle and adapted to receive fluid directed downwardly thereinto; and an outlet tube providing communication between the top of said upper chamber and the exterior of said bottle.

18. A sample collection bottle comprising in combination: an upper chamber; a lower chamber; means providing communication between the bottom of said upper chamber and the top of said lower chamber; an inlet tube passing from said lower chamber vertically through said upper chamber and providing communication between said lower chamber and the exterior of said bottle; an outlet tube inclined at an angle with respect to said inlet tube and providing communication between the top of said